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[54] **CONTROLLING POWER AND ACCESS OF WIRELESS DEVICE TO BASE STATIONS WHICH USE CODE DIVISION MULTIPLE ACCESS**

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[52] **U.S. Cl.** **370/252**; 370/329; 370/335; 375/200

[58] **Field of Search** 375/200, 206; 370/252, 332, 333, 334, 335, 342, 445, 329, 447, 448; 455/517, 512, 527, 453

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[57] **ABSTRACT**

The invention relates to the use of CDMA techniques. Data signals to be transmitted from a plurality of wireless devices are spread across a common bandwidth. The data signals are received by a base station as a composite spread signal. The base station partially despreads the composite spread signal with unique codes to extract data signals from individual wireless devices. The data rate and quality of service requirements for each wireless device are used to calculate a power factor and a control signal is sent to control the power from a particular wireless device. In addition, a probability of transmission value is calculated based on an equivalent current load value and an equivalent population value. The probability of transmission value determines whether a particular wireless device is allowed access to an uplink frequency channel.

15 Claims, 9 Drawing Sheets